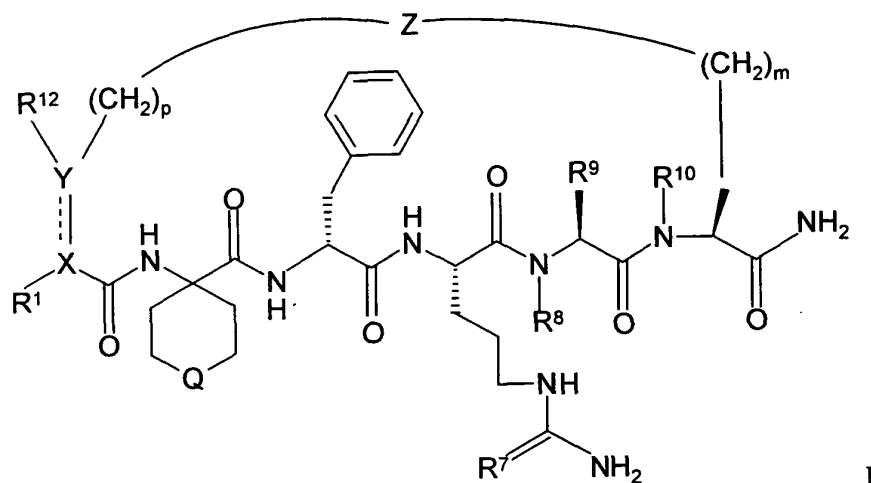


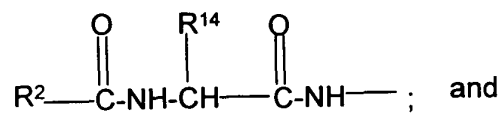
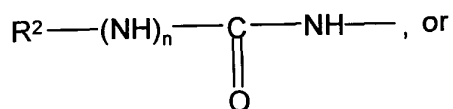
What is claimed is:

1. A compound of the formula:



wherein

R^1 and R^{12} together with X and Y form a phenyl ring and X is C and Y is C, or R^1 is hydrogen,



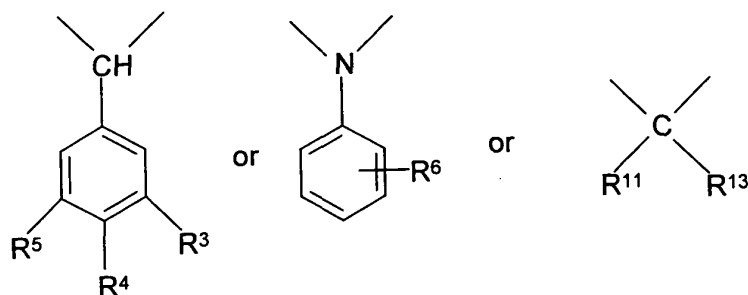
R^{12} is hydrogen, with either X and Y being each C and the bond between X and Y being a double bond, or with X and Y being each CH and the bond between X and Y being a single bond;

R^2 is alkyl having from 1 to 5 carbon atoms, alkenyl having from 2 to 5 carbon atoms, or alkynyl having from 2 to 5 carbon atoms ;

R^{14} is alkyl having from 1 to 5 carbon atoms;

n is 0 or 1; and

Q is



wherein R^3 , R^4 and R^5 are independently hydrogen, halo, alkyl having from 1 to 4 carbon atoms, hydroxy or alkoxy having from 1 to 4 carbon atoms, wherein when R^4 is not hydrogen, R^3 and R^5 are both hydrogen; and

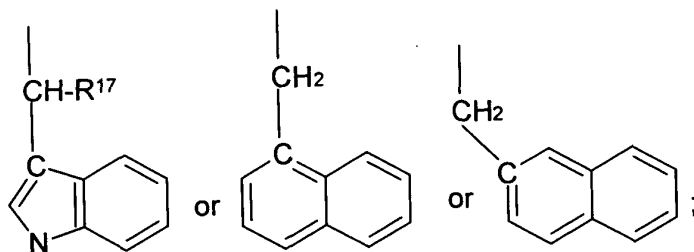
R^6 is hydrogen, alkyl having from 1 to 3 carbon atoms, alkoxy having from 1 to 3 carbon atoms, phenoxy, or halo;

R^{11} and R^{13} are each independently hydrogen, alkyl having 3 or 4 carbons, cycloalkyl having 5 or 6 carbon atoms, or R^{11} and R^{13} are both phenyl;

R^7 is O or NH;

R^8 is hydrogen or methyl;

R^9 is

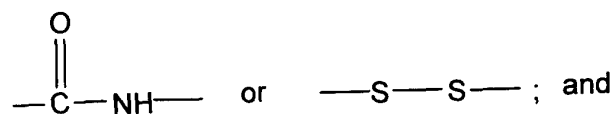


R^{10} is hydrogen or methyl;

p is 0 or 1;

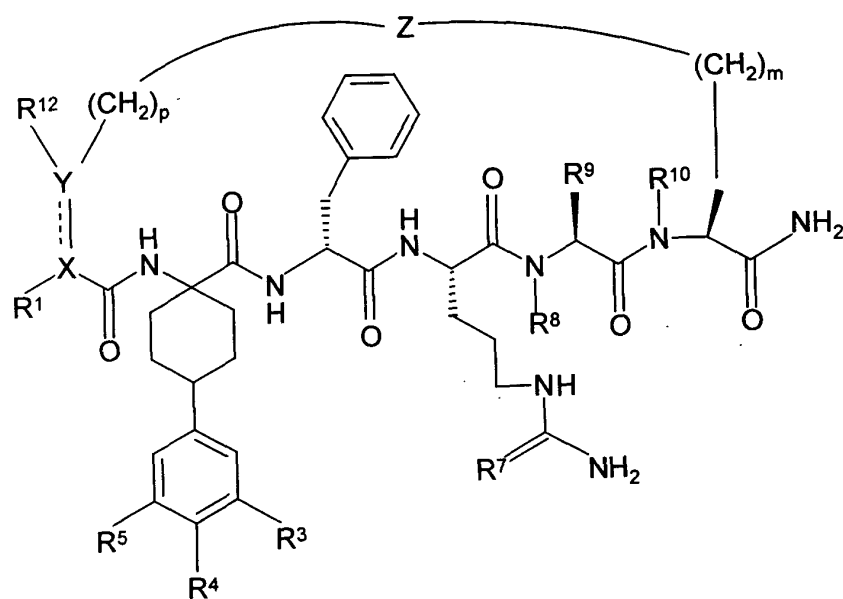
m is 0, 1, 2, or 3; and

Z is



R¹⁷ is hydrogen or lower alkyl.

2. A compound of the formula:

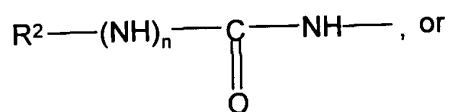


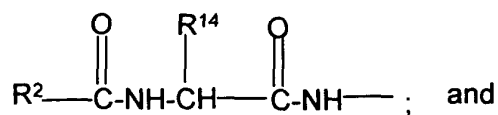
IA

wherein

R¹ and R¹² together with X and Y form a phenyl ring and X is C and Y is C, or

R¹ is hydrogen,





R^{12} is hydrogen, with either X and Y being each C and the bond between X and Y being a double bond, or with X and Y being each CH and the bond between X and Y being a single bond;

R^2 is alkyl having from 1 to 5 carbon atoms, alkenyl having from 2 to 5 carbon atoms, or alkynyl having from 2 to 5 carbon atoms;

R^{14} is alkyl having from 1 to 5 carbon atoms;

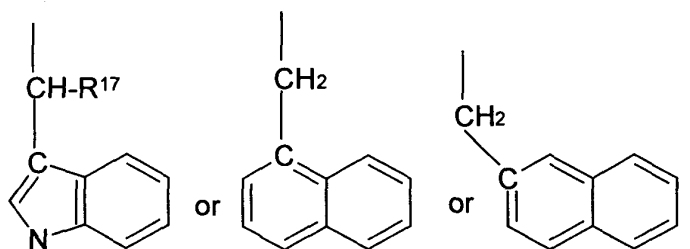
n is 0 or 1;

R^3 , R^4 and R^5 are independently hydrogen, halo, alkyl having from 1 to 4 carbon atoms, hydroxy, or alkoxy having from 1 to 4 carbon atoms; wherein when R^4 is not hydrogen, R^3 and R^5 are both hydrogen;

R^7 is O or NH;

R^8 is hydrogen or methyl;

R^9 is

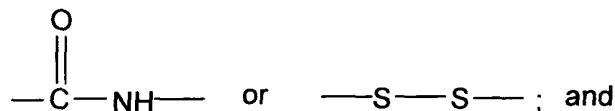


R^{10} is hydrogen or methyl;

p is 0 or 1;

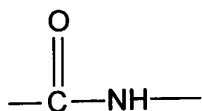
m is 0, 1, 2, or 3; and

Z is



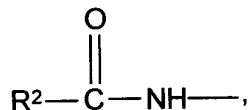
R^{17} is hydrogen or lower alkyl.

3. The compound of claim 2, wherein X and Y are each CH and the bond between X and Y is a single bond; Z is



R⁷ is O;

R¹ is

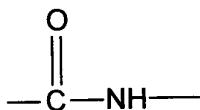


R² is alkyl; and

R¹⁰ and R¹² are both hydrogen.

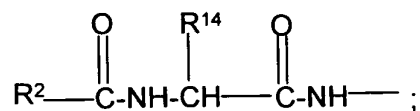
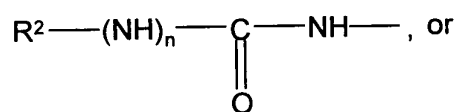
4. The compound of claim 3, Penta-cyclo(Asp-Lys)-Asp-Apc-(D)Phe-Cit-Trp-Lys-NH₂.

5. The compound of claim 2, wherein Z is



R⁷ is NH;

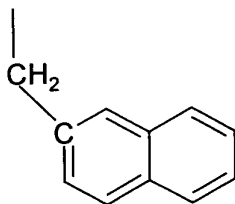
R¹ is hydrogen,



R^2 is alkyl; and

R^{10} and R^{12} are both hydrogen; and n and R^{14} are as above.

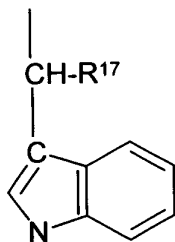
6. The compound of claim 5, wherein X and Y are each CH and the bond between X and Y is a single bond; n is 0; and R^9 is



7. The compound of claim 6, Penta-cyclo(Asp-Lys)-Asp-Apc-(D)Phe-Arg-(2)Nal-Lys-NH₂.

8. The compound of claim 6, penta-cyclo(Asp-Lys)-Asp-Apc-(D)Phe-Arg-N-methyl(2)Nal-Lys-NH₂.

9. The compound of claim 5, wherein R^9 is



and R^{17} is as above.

10. The compound of claim 9, wherein X and Y are each CH and the bond between X and Y is a single bond; and one of R^3 , R^4 and R^5 is hydrogen, halo or alkyl and the remainder are hydrogen.

11. The compound of claim 10, Penta-cyclo(Asp-Lys)-Asp-Apc-(D)Phe-Arg-Trp-Lys-NH₂.

12. The compound of claim 10, Penta-cyclo(Asp-Lys)-Asp-4-MeApc-(D)Phe-Arg-Trp-Lys-NH₂.
13. The compound of claim 10, Penta-cyclo(Glu-Lys)-Glu-Apc-(D)Phe-Arg-Trp-Lys-NH₂.
14. The compound of claim 10, Penta-cyclo(Asp-Orn)-Asp-Apc-(D)Phe-Arg-Trp-Orn-NH₂.
15. The compound of claim 10, Penta-cyclo(Asp-Dbr)-Asp-Apc-(D)Phe-Arg-Trp-Dbr-NH₂.
16. The compound of claim 10, Penta-cyclo(Asp-Dpr)-Asp-Apc-(D)Phe-Arg-Trp-Dpr-NH₂.
17. The compound of claim 10, Ac-cyclo(Asp-Dpr)-Asp-Apc-(D)Phe-Arg-Trp-Dpr-NH₂.
18. The compound of claim 9, wherein X and Y are each CH and the bond between X and Y is a single bond; one of R³, R⁴ and R⁵ is alkoxy, and the remainder are hydrogen; and n is 0.
19. The compound of claim 18, Penta-cyclo(Asp-Lys)-Asp-4-MeOApc-(D)Phe-Arg-Trp-Lys-NH₂.
20. The compound of claim 18, Penta-cyclo(Asp-Lys)-Asp-4-EtOApc-(D)Phe-Arg-Trp-Lys-NH₂.
21. The compound of claim 18, Penta-cyclo(Asp-Lys)-Asp-4-iPrOApc-(D)Phe-Arg-Trp-Lys-NH₂.

22. The compound of claim 18, Penta-cyclo(Asp-Lys)-Asp-3-MeOApc-(D)Phe-Arg-Trp-Lys-NH₂.

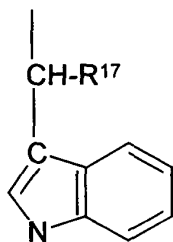
23. The compound of claim 9, Penta-cyclo(Asp-Lys)-Asp-4-OHApc-(D)Phe-Arg-Trp-Lys-NH₂.

24. The compound of claim 9, Penta-cyclo(Asp-Lys)-Asp-4-ClApc-(D)Phe-Arg-Trp-Lys-NH₂.

25. The compound of claim 9, wherein each of R¹, R³, R⁴, R⁵, R⁸ and R¹⁰ is hydrogen;

R⁷ is NH;

R⁹ is



p is 0; and R¹⁷ is as above.

26. The compound of claim 25, Cyclo(succinic acid-Lys)-succinic acid-Apc-(D)Phe-Arg-Trp-Lys-NH₂.

27. The compound of claim 25, Cyclo(maleic acid-Lys)-maleic acid-Apc-(D)Phe-Arg-Trp-Lys-NH₂.

28. The compound of claim 25, Cyclo(succinic acid-Dpr)-succinic acid-Apc-(D)Phe-Arg-Trp-Dpr-NH₂.

29. The compound of claim 25, Cyclo(maleic acid-Dpr)-maleic acid-Apc-(D)Phe-Arg-Trp-Dpr-NH₂.

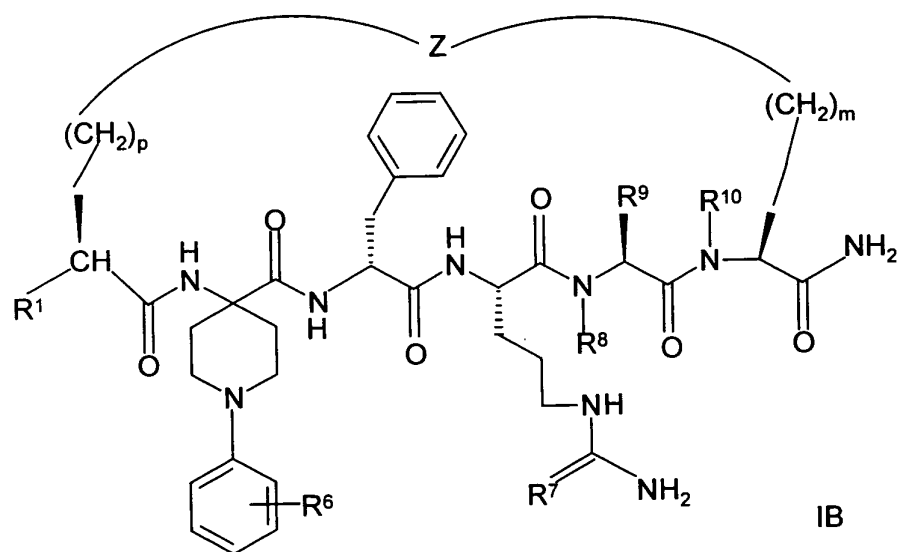
30. The compound of claim 2, wherein R¹ and R¹² together with X and Y form a phenyl ring.

31. The compound of claim 30, Cyclo(phthalic acid-Lys)-phthalic acid-Apc-(D)Phe-Arg-Trp-Lys-NH₂.

32. The compound of claim 30, Cyclo(phthalic acid-Dpr)-phthalic acid-Apc-(D)Phe-Arg-Trp-Dpr-NH₂.

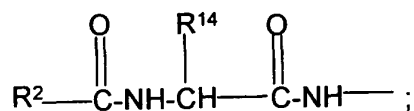
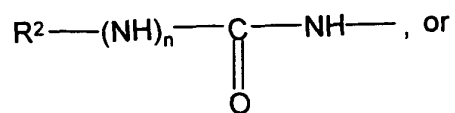
33. The compound of claim 2, Ac-Nle-cyclo(Cys-Cys)-Cys-Apc-(D)Phe-Arg-Trp-Cys-NH₂.

34. A compound of the formula:



wherein

R¹ is hydrogen,



R^2 is alkyl having from 1 to 5 carbon atoms, alkenyl having from 2 to 5 carbon atoms, or alkynyl having from 2 to 5 carbon atoms;

R^{14} is alkyl having from 1 to 5 carbon atoms;

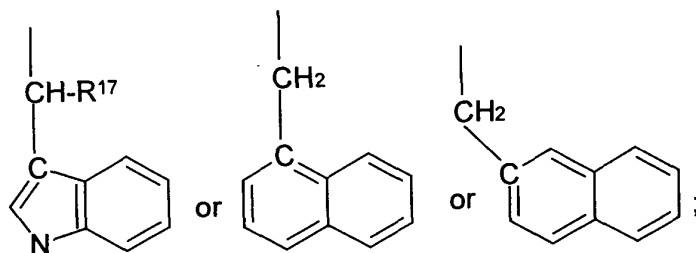
n is 0 or 1;

R^6 is hydrogen, alkyl having from 1 to 3 carbons, alkoxy having from 1 to 3 carbons, phenoxy, or halo;

R^7 is O or NH;

R^8 is hydrogen or methyl;

R^9 is

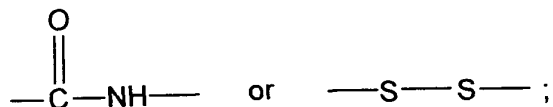


R^{10} is hydrogen or methyl;

p is 0 or 1;

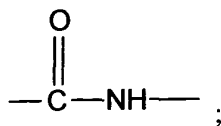
m is 0, 1, 2, or 3; and

Z is



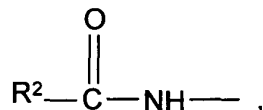
and R^{17} is hydrogen or lower alkyl.

35. The compound of claim 34, wherein Z is



R⁷ is NH;

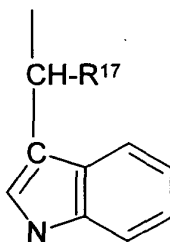
R¹ is



R² is alkyl;

R⁸ and R¹⁰ are each hydrogen; and

R⁹ is



and R¹⁷ is as above.

36. The compound of claim 35, wherein R⁶ is hydrogen or alkyl.

37. The compound of claim 36, Penta-cyclo(Asp-Lys)-Asp-Appc-(D)Phe-Arg-Trp-Lys-NH₂.

38. The compound of claim 36, Penta-cyclo(Asp-Lys)-Asp-2-MeAppc-(D)Phe-Arg-Trp-Lys-NH₂.

39. The compound of claim 36, Penta-cyclo(Asp-Lys)-Asp-2-iPrAppc-(D)Phe-Arg-Trp-Lys-NH₂.

40. The compound of claim 36, Penta-cyclo(Asp-Lys)-Asp-3-MeAppc-(D)Phe-Arg-Trp-Lys-NH₂.

41. The compound of claim 36, Penta-cyclo(Asp-Lys)-Asp-4-MeAppc-(D)Phe-Arg-Trp-Lys-NH₂.

42. The compound of claim 35, wherein R⁶ is halo.

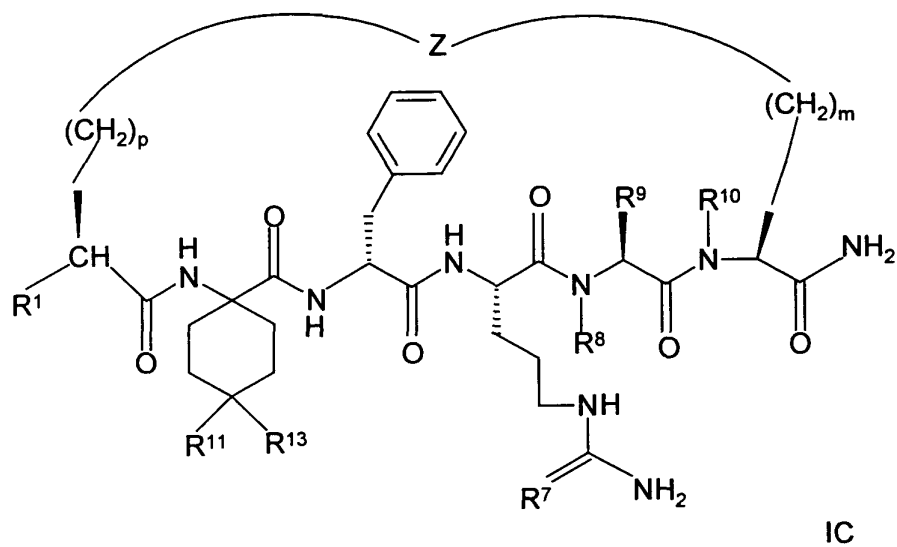
43. The compound of claim 42, Penta-cyclo(Asp-Lys)-Asp-4-ClAppc-(D)Phe-Arg-Trp-Lys-NH₂.

44. The compound of claim 35, wherein R⁶ is alkoxy or phenoxy.

45. The compound of claim 44, Penta-cyclo(Asp-Lys)-Asp-4-PhOAppc-(D)Phe-Arg-Trp-Lys-NH₂.

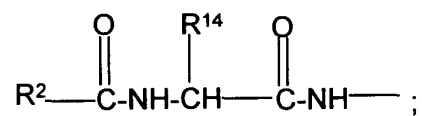
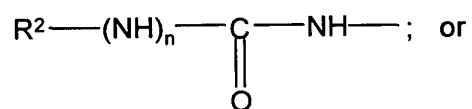
46. The compound of claim 44, Penta-cyclo (Asp-Lys)-Asp-3-MeO-Appc-(D)Phe-Arg-Trp-Lys- NH₂.

47. A compound of the formula:



wherein

R^1 is hydrogen,



R^2 is alkyl having from 1 to 5 carbon atoms, alkenyl having from 2 to 5 carbon atoms, or alkynyl having from 2 to 5 carbon atoms;

R^{14} is alkyl having from 1 to 5 carbon atoms;

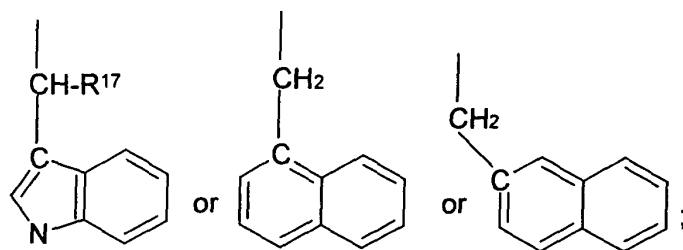
n is 0 or 1;

R^{11} and R^{13} are each independently hydrogen, alkyl having 3 or 4 carbon atoms, or cycloalkyl having 5 or 6 carbon atoms or R^{11} and R^{13} are both phenyl;

R^7 is O or NH;

R^8 is hydrogen or methyl;

R^9 is

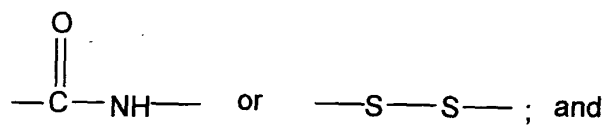


R^{10} is hydrogen or methyl;

p is 0 or 1;

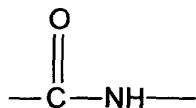
m is 0, 1, 2, or 3; and

Z is



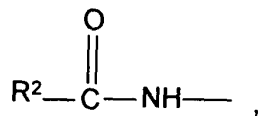
R^{17} is hydrogen or lower alkyl.

48. The compound of claim 47, wherein Z is



R^7 is NH ;

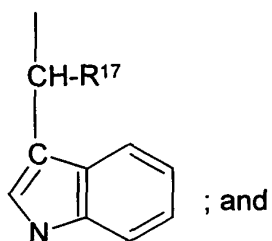
R^1 is



R^2 is alkyl;

R^8 and R^{10} are each hydrogen; and

R⁹ is



R¹⁷ is hydrogen or lower alkyl.

49. The compound of claim 48, wherein one of R¹¹ and R¹³ is alkyl or cycloalkyl and the other is hydrogen.

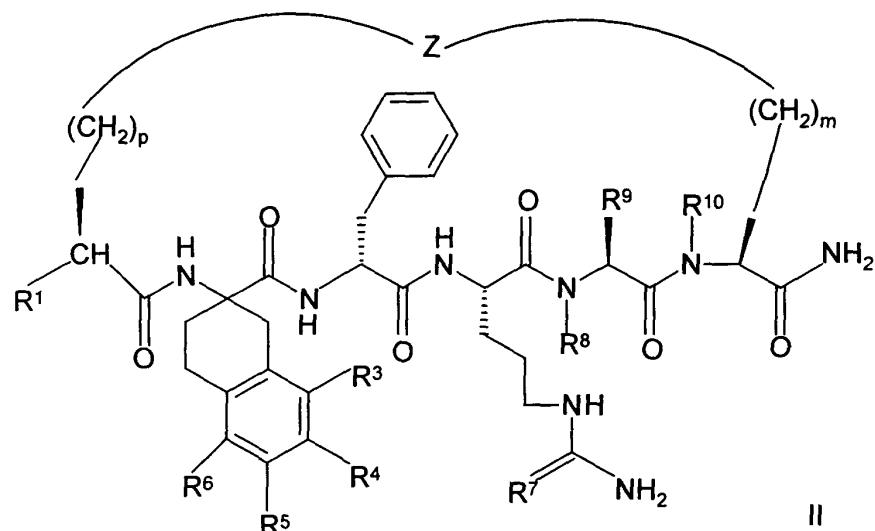
50. The compound of claim 49, penta-cyclo(Asp-Lys)-Asp-Achc-(D)Phe-Arg-Trp-Lys-NH₂.

51. The compound of claim 49, penta-cyclo(Asp-Lys)-Asp-Abc-(D) Phe-Arg-Trp-Lys-NH₂.

52. The compound of claim 48, wherein R¹¹ and R¹³ are phenyl.

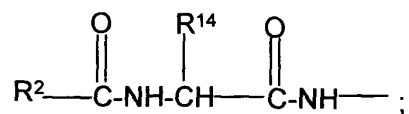
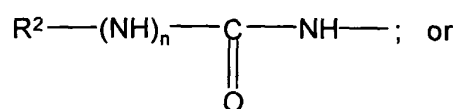
53. The compound of claim 52, penta-cyclo(Asp-Lys)-Asp-4-Adpc-(D)Phe-Arg-Trp-Lys-NH₂.

54. A compound of the formula:



wherein

R^1 is hydrogen,



R^2 is alkyl having from 1 to 5 carbon atoms, alkenyl having from 2 to 5 carbon atoms, or alkynyl having from 2 to 5 carbon atoms;

R^{14} is alkyl having from 1 to 5 carbon atoms;

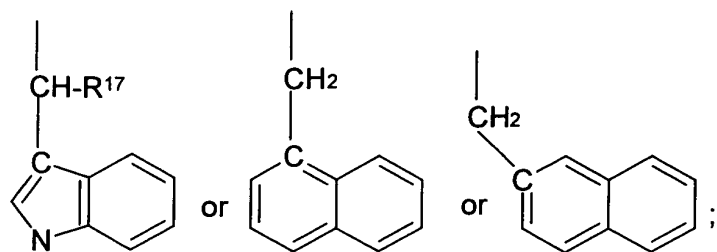
n is 0 or 1;

one of R^3 , R^4 , R^5 and R^6 is hydrogen, halo, alkyl having from 1 to 3 carbon atoms, or alkoxy having from 1 to 3 carbon atoms, and the remainder are hydrogen;

R^7 is O or NH;

R^8 is hydrogen or methyl;

R^9 is

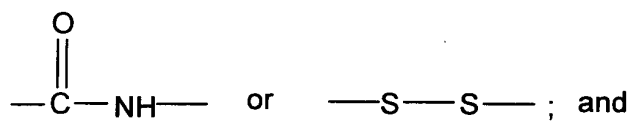


R^{10} is hydrogen or methyl;

p is 0 or 1;

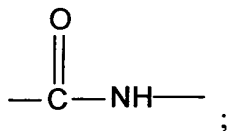
m is 0, 1, 2, or 3; and

Z is

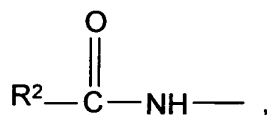


R^{17} is hydrogen or lower alkyl.

55. The compound of claim 54, wherein Z is



R^1 is

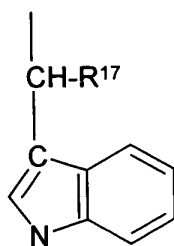


R^2 is alkyl;

R^3 , R^4 , R^5 , R^8 and R^{10} are each hydrogen;

R^6 is hydrogen, halo, alkyl having from 1 to 3 carbon atoms, or alkoxy having from 1 to 3 carbon atoms; and

R⁹ is



and R¹⁷ is as above.

56. The compound of claim 55, wherein R⁷ is NH.
57. The compound of claim 56, wherein R⁶ is hydrogen or alkyl.
58. The compound of claim 57, penta-cyclo(Asp-Lys)-Asp-(D,L)-Atc-(D)Phe-Arg-Trp-Lys-NH₂.
59. The compound of claim 57, penta-cyclo(Asp-Lys)-Asp-5-Me-(D,L)Atc-(D)Phe-Arg-Trp-Lys-NH₂.
60. The compound of claim 57, penta-cyclo(Asp-Lys)-Asp-5-Et-(D,L)Atc-(D)Phe-Arg-Trp-Lys-NH₂.
61. The compound of claim 57, penta-cyclo(Asp-Lys)-Asp-5-iPr-(D,L)Atc-(D)Phe-Arg-Trp-Lys-NH₂.
62. The compound of claim 52, wherein R⁶ is halo.
63. The compound of claim 62, penta-cyclo(Asp-Lys)-Asp-5-BrAtc-(D)Phe-Arg-Trp-Lys-NH₂.

64. The compound of claim 62, penta-cyclo(Asp-Lys)-Asp-5-ClAtc-(D)Phe-Arg-Trp-Lys-NH₂.

65. The compound of claim 52, wherein R⁶ is alkoxy.

66. The compound of claim 65, penta-cyclo(Asp-Lys)-Asp-5-MeO-(D,L)Atc-(D)Phe-Arg-Trp-Lys-NH₂.

67. The compound of claim 65, penta-cyclo(Asp-Lys)-Asp-5-EtO-(D,L)Atc-(D)Phe-Arg-Trp-Lys-NH₂.

68. The compound of claim 65, penta-cyclo(Asp-Lys)-Asp-5-iPrO-(D,L)Atc-(D)Phe-Arg-Trp-Lys-NH₂.

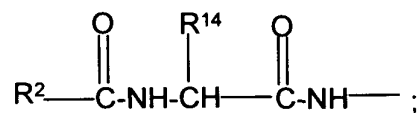
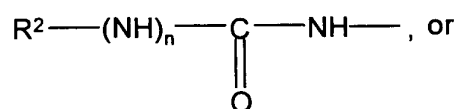
69. The compound of claim 56, wherein R⁷ is O and R⁶ is halo.

70. The compound of claim 69, penta-cyclo(Asp-Lys)-Asp-5-BrAtc-(D)Phe-Cit-Trp-Lys-NH₂.

71. The compound of claim 69, penta-cyclo(Asp-Lys)-Asp-5-ClAtc-(D)Phe-Cit-Trp-Lys-NH₂.

72. The compound of claim 54, wherein Z is -S-S- ;

R¹ is

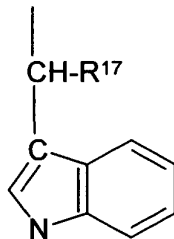


R^3, R^4, R^5, R^8 and R^{10} are hydrogen;

R^6 is hydrogen or halo;

R^7 is NH;

R^9 is



wherein R^{17} is as above.

73. The compound of claim 72, Ac-Nle-cyclo(Cys-Cys)-Cys-(D,L)Atc-(D)Phe-Arg-Trp-Cys-NH₂.

74. The compound of claim 72, penta-cyclo(Cys-Cys)-Cys-5-Br(D,L)Atc-(D)Phe-Arg-Trp-Cys-NH₂.

75. A compound, penta-cyclo(Asp-Lys)-Asp-Apc-(D)Phe-Ala-Trp-Lys-NH₂.

76. A compound, Penta-cyclo(Asp-Lys)-Asp-Apc-(D)Phe-Arg-(2S,3S) beta methyl-Trp-Lys-NH₂.

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